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Miracle to meltdown: A pathology of the East Asian financial crisis

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Abstract:

The financial crisis in East Asia was made more dramatic by the fact that the region's performance in terms of economic growth over the preceding decade had been widely perceived as a 'miracle'. What was it that transformed the region's fortunes, and what are the chances for a speedy economic recovery?

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[Headnote]

ABSTRACT The financial crisis in East Asia was made more dramatic by the fact that the region's performance in terms of economic growth over the preceding decade had been widely perceived as a 'miracle'. What was it that transformed the region's fortunes, and what are the chances for a speedy economic recovery? Systematic analysis reveals that, while there is no uncausal explanation, and while few if any commentators anticipated the crisis before the event, the fundamental difference from previous international financial crises is the extreme indebtedness of the corporate sector of the crisis countries. Private sector repayment difficulties and the associated banking crises triggered the sudden withdrawal of capital and the collapse of exchange rates. Failure to address the underlying private sector debt overhang, and reliance instead on conventional macroeconomic policy solutions, have led to a decline in output and a depreciation in exchange rates which have been far greater than need have been the case.

For most of the 1980s and the first half of the 1990s the newly industrialising countries of East Asia were held up as the world's most dramatic economic success story. They were characterised by exceptionally rapid rates of economic growth and human development, by relatively low inflation and by an absence of balance of payments difficulties. During the 1980s, when Latin America was experiencing severe debt crises, East Asia managed to avoid them. The size of capital inflows to the region in the first half of the 1990s suggested that capital markets expected the East Asian success story to continue.

As many parts of the developing world, including Latin America and Africa, began to review their economic structures as well as their economic policies, with the objective of raising future rates of economic growth, East Asia was frequently cited as a model of what could be achieved.

However, as it received closer scrutiny, economics often seemed unable to provide an entirely satisfactory explanation of the East Asian growth experience, which therefore became referred to as a 'miracle', the very choice of the term implying that the phenomenon was beyond purely scientific explanation.

Then, in 1997/98, quite suddenly it seemed, the success turned sour and the economies of East Asia experienced an economic reversal of such proportions that it was generally regarded as warranting the overused description of a 'crisis'. The crisis saw sharply depreciating exchange rates, a big reduction in the rate of economic growth, rising unemployment, a large turnaround in capital flows from inflows to outflows and-a sure sign of economic distress-the involvement of the  [IMF](#).

But just as economics had struggled to find a fully convincing explanation of the East Asian growth

'miracle', so it now struggled to explain the 'meltdown'. Certainly the conventional analysis of speculative currency crises that had been honed over the previous 20 years did not appear to fit the facts neatly. One feature of the Asian crisis, differentiating it from previous crises which have affected the international financial system, is that repayment difficulties have largely related to short-term international bank loans to private sector borrowers. Previous crises-over the repayment of sovereign bonds (in the 19th century and in the 1930s), long-term syndicated bank lending to sovereign borrowers (the 1980s debt crises), and short-term bills (the dollar-denominated tesobonos issued by the Mexican government in 1993 and 1994)-were all associated with public sector borrowing.

Reflecting this, the crisis had not been widely predicted. Credit rating agencies only marked down Southeast Asian and South Korean bonds after the crisis, and spreads on bond issues and syndicated loans actually fell between mid-1995 and mid-1997.

It is in the nature of economics that it is better at explaining the past than at anticipating the future. After the event, there is clearly more information upon which to draw. The problem with prediction is not usually in identifying the relevant indicators, but in attaching appropriate weight to them.

This paper is an exercise in retrospection. However, retrospection is important in as much as it may lead to a reassessment of the weight that should be attached to different economic indicators. This would certainly appear to be the legacy of the East Asian crisis from which there are important lessons to be learned.

The layout of the paper is as follows. Section two briefly discusses the 'miracle' phase and assesses the extent to which conventional economic analysis explains it. Was the East Asian miracle as miraculous after all? Section three examines the 'crisis' or 'meltdown' phase, and assesses a number of hypotheses that have been put forward to account for it. What, in particular, was it that created an unsustainable situation in East Asia in 1997 and 1998. Section four discusses the weaknesses of the policy response to the crisis. The final section attempts to extract lessons from the East Asian experience that may be helpful in avoiding similar crises in the future.

East Asia: the miracle phase

As a comprehensive study by the [World Bank](#) conducted in the first half of the 1990s showed (Page et al, 1993), there was no uni-causal explanation of rapid East Asian economic growth during 1965-90. However, although the study identified wide divergences across countries, it concluded that common elements were to be found in sound domestic macroeconomic management, in strong export orientation and in political stability. East Asian economies had been able to avoid the fiscal deficits and current account balance of payments deficits that had often constrained economic growth in developing countries. The idea that growth was associated with a unique 'Asian development model' based on strategic government intervention in trade or industry found less support, with the picture differing significantly between countries.

At the same time as the [World Bank](#) was producing its study, other analyses of East Asia based on growth accounting were producing results which strongly challenged the 'miracle' orthodoxy (Young, 1995). Here the contention was that East Asian growth was largely attributable to both physical and human capital accumulation rather than to any miraculous increase in total factor productivity. It was increasing inputs, rather than rapid increases in output per unit of input, which lay behind East Asian growth.

While interesting in itself, this finding was more relevant in terms of its message for future economic

growth in the region. With diminishing returns, it was most unlikely that East Asian economies would be able to sustain the rates of economic growth that they had achieved throughout the 1980s and early 1990s. Far from being miraculous, their experience now appeared to be entirely consistent with neoclassical growth theory.¹ Economies with high saving and investment rates will accumulate capital and grow up to a point; but beyond that point economic growth will decline. High savings rates will not sustain economic growth in perpetuity. In the long run this model says that economic growth depends on the growth of productivity. To the extent that there was a miracle in East Asia, it was to do with the rapid accumulation of capital, and the willingness to sacrifice current consumption in favour of future consumption.

However, whereas neoclassical growth theory was consistent with a slowdown in East Asian growth, it was certainly not directly consistent with an economic crisis. Why should a fall in economic growth to a less spectacular but still impressive rate create a crisis? Indirectly, of course, a slowdown in economic growth that had been unexpected by the markets could, in principle, have sparked a discrete downward reassessment of future growth prospects and a sudden outflow of capital, with this in turn creating a liquidity crisis. However, it is much more likely that this reassessment would have been gradual. Moreover, in practice it was the crisis that reduced the rate of economic growth rather than the other way around. Asian economic growth during the first half of the 1990s had if anything been faster than it had been during the 1980s.² So what did cause the crisis?

East Asia: the meltdown phase

Just as there was no uni-causal explanation of East Asia's rapid growth in the 1980s and 1990s, there is no uni-causal explanation of the crisis in 1997/98. Furthermore, just as differences existed across East Asian economies in terms of the nature of their growth performance, differences also existed in the nature of the crisis that they encountered.³ In [Indonesia](#), [Korea](#), [Malaysia](#), the Philippines and Singapore an important element of the crisis was the contagion effect from [Thailand](#). Clearly, for the initiating country contagion was not relevant.

While the [IMF](#) has claimed that economic crises do not occur in the absence of fundamental economic imbalances and weaknesses, (or, more picturesquely, 'out of a clear blue sky'), by the same token not all situations of fundamental economic weakness result in crises. For a crisis to occur, therefore, it would seem necessary for fundamental economic weakness to be combined with a 'trigger' that sets it off. Something happened in East Asia that converted a situation that appeared sustainable into one that became unsustainable.

But again, while the economic situation became unsustainable in [Thailand](#), [Korea](#) and [Indonesia](#), it remained sustainable in [Malaysia](#), Hong Kong and [Singapore](#), in the sense that these countries avoided having to borrow from the [IMF](#); why was this?

There are a number of elements to the concept of sustainability.⁴ These include underlying structural features, including the structure and pattern of trade, and the balance between domestic saving and investment; the stance of macroeconomic policy in terms of fiscal, monetary and exchange rate policy; vulnerability and exposure to external trading and financial shocks, reflecting the degree of export concentration and the maturity of external debt, as well as swings in international capital market perceptions; and, finally, the scope for economic adjustment, which depends largely on the political economy of policy reform.

This classification suggests that sustainability may be affected by both domestic and external factors, although of course this causal distinction is not always clear cut, since a given external shock may be

better or less well handled by domestic policy makers. Thus it was that the deteriorating global economic environment at the beginning of the 1980s was better handled by East Asian than by Latin American countries. In principle, at least, it could be that East Asian policy makers simply became less good at navigating their way through turbulent global economic waters in the mid-1990s. In practice, while there is little doubt that some policy mistakes were made, the global economic environment in the mid-1990s was not very turbulent. In many respects the global economy was performing well according to conventional indicators. This makes the East Asian crisis more intriguing. What do the elements of sustainability suggest about it?

Underlying structural features

Domestic saving rates have remained high in East Asia at more than 30% of GDP; the crisis was not therefore caused by any explosion in consumption. The principal structural factor contributing to the crisis was a rapid growth of bank and other claims on the private sector. During the 1990s these claims increased rapidly as a share of GDP, reaching especially high levels in [Thailand](#) and [South Korea](#), even during a period when GDP itself was growing rapidly (Table 1).

The potential for repayment problems is exacerbated by the fact that these claims are largely liabilities of the corporate sector not individuals and therefore must be serviced out of corporate profits, the least stable component relative to wages or rental income of private sector income. In fact the data in Table 1 understate total corporate indebtedness in the Asian economies, since they exclude direct borrowing, which in the case of Indonesian and Korean companies was of a comparable magnitude to their borrowing from domestic banks. The extreme case is [South Korea](#), where many of the industrial conglomerates (the chaebols) have ratios of debt to equity in excess of 6 to 1, making some form of debt restructuring unavoidable.

TABLE 1
(GDP growth and bank lending in East Asia, 1985-97)

	Thailand	Indonesia	Malaysia	Philippines	South Korea
Annual growth rate of GDP (%)					
1985-90	10.1	8.2	9.8	4.7	10.8
1990-95	9.8	7.1	8.7	2.5	7.9
1995-96	5.5	8.8	8.6	5.8	7.1
1996-97	-2.4	9.9	7.1	9.7	5.3
Ratio of bank claims on private sector as (% of GDP)					
1985	14	46	31	39	100
1991	39	73	87	88	121
1996	162	161	93	49	141
1997	130	91	100	77	110

Source: International Financial Statistics

TABLE 1

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Since bank lending in the Asian countries has primarily been to companies, not to individuals, it is appropriate to compare the data in Table 1 with ratios of corporate debt to GDP in the industrialised countries. The ratios of enterprise debt to GDP in 1994 ranged from 55% in [Japan](#) and [Germany](#), to 60% in the [USA](#) and 65% in the [UK](#) ([OECD](#) non-financial enterprises, financial statements, 1995). The data thus suggest that, with the exception of the [Philippines](#), corporate debt in the crisis countries had reached levels far higher in relation to national income than in the developed world.

It might still have been possible to service this corporate borrowing, had it been used efficiently to finance profitable investment opportunities. But this was not always the case. In [Thailand](#), and to a lesser extent in [Malaysia](#) and the [Philippines](#), there was an excessive allocation of bank loans to property investment. While this was not a classic speculative property boom, in that property prices themselves do not appear to have become grossly inflated, there was an oversupply of commercial property. By the end of 1996 the excess supply of office space in [Bangkok](#) had risen to some six years' worth of flow demand, even in good years. With rental levels declining, property developers faced considerable difficulties in maintaining repayments. In the Thai case this led to a suspension of bank loan servicing in January 1997.

In two of the other countries affected by the crisis, [Indonesia](#) and [South Korea](#), misallocation of investment occurred because bank credit was allocated in large degree according to political direction. In the Indonesian case this reflected an extreme form of 'crony capitalism' where those with links to President [Suharto](#) could access bank credit without regard to the viability of their business enterprises. In [South Korea](#) the mechanism was less crude but also led to great distortion in the allocation of investment funds. [South Korea](#) was facing difficult problems of structural adjustment as traditional export industries were being undercut by competition from the lower wage economies of Southeast Asia and the Republic of [China](#). However, instead of confronting the necessity to rationalise and if necessary close loss-making capacity, [Korea](#) used government guarantees to sanction a continued flow of borrowing to bridge the financial deficits of the chaebols.

These misallocations of investment were a relatively recent problem. As argued by the [World Bank](#) in 1993, the Asian economies had hitherto been highly successful in directing investment to areas where there was a high rate of return. While the data in Table 2 suggest an upward trend in incremental capital output ratios (ICORs) in the crisis countries, there were no obvious indications in the aggregate data of declining returns to investment until the crisis broke.

Another structural factor was the trade orientation of the Asian economies. Because of their degree of export diversification, East Asian economies do not initially give the impression of being vulnerable to external shocks in the same way that (say) sub-Saharan African economies are (because of their high degree of export concentration on primary products). However, while not exposed to a severe adverse trade shock in the form of a sudden decline in commodity prices, East Asian export growth was always likely to be liable to increasing international competition. This came from [China](#) and [Mexico](#), particularly following the large devaluation of the yuan and the peso in 1994 and 1995, respectively. [Korea's](#) export performance, in particular, was hit by the world's oversupply of semi-conductors and immediately before the crisis the terms of trade did move against the East Asian economies.

Structural problems were present but are not of themselves a sufficient explanation of the crisis. Increasing ICORs and a deterioration of the terms of trade would normally be expected to lead to a gradual decline in the rate of economic growth rather than a sudden crisis. It is also necessary to consider macroeconomic and other factors in order to understand what made these economies vulnerable to a sudden shock.

Macroeconomic policy and vulnerability to external shocks

To attribute the 'crisis' to lax macroeconomic policy is at odds with earlier explanations of the 'miracle', which emphasised sound macroeconomics and political stability. Was there really such a sea change? The answer is no; although this is not to say that macroeconomic policy was irrelevant.

TABLE 2
Incremental capital output ratios in East Asia,
1987-96

	1987-89	1990-92	1993-95
Indonesia	3.6	3.5	3.9
Korea	3.5	5.2	5.2
Malaysia	3.5	4.5	5.0
Philippines	3.4	23.8	6.2
Thailand	3.0	4.8	5.4

Source: World Bank, World Development Indicators.

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TABLE 2

IMF data show that Asian inflation increased quite sharply over 1993-95, but then fell from 11.9% in 1995 to a modest 6.7% and 3.9% in 1996 and 1997, respectively. Concentrating on Southeast Asia, inflation actually fell between 1991 and 1996 in [Indonesia](#) and [Malaysia](#), and showed little change in [Thailand](#). Government finances were in surplus throughout the region more often than they were in deficit in the years preceding the crisis, and when there were deficits these remained small relative to GDP, and much smaller than fiscal deficits in industrialised countries.

For illustrative purposes Table 3 provides selected economic indicators for [Thailand](#) over 1994-97. Before 1997 there is little here to suggest an economy in imminent crisis; indeed, it is only the rapid decline in official reserves that hints at the depth of the crisis in 1997. If there was a major lapse in the macroeconomic policy stance it was not to be found in fiscal policy.

The weak link in terms of macroeconomic policy, particularly in [Thailand](#) but elsewhere in East Asia as well, related to exchange rate policy. [Thailand](#) maintained a pegged value for the baht against the dollar. But with relatively fast inflation compared with the [USA](#) and other industrial countries, and a 50% appreciation in the value of the [US](#) dollar against the Japanese yen over the period 1995-97, the baht became overvalued in real terms. This seriously weakened the current account balance of payments. However, [Thailand](#) did not take timely measures to eliminate currency over-valuation. In this respect there were elements of a conventional currency crisis.

Although weaknesses in economic fundamentals and macroeconomic policy were present in [Thailand](#), and to a lesser degree elsewhere in Southeast Asia, these alone would not have made the situation unsustainable. Central to the crisis was the acceleration of capital inflows during 1995 and 1996, which were much greater than earlier in the decade, followed by the sudden outflow of capital after the crisis had begun. This inflow and subsequent outflow was especially associated with over-reliance on short-term bank borrowing.

TABLE 3
Thailand: selected economic indicators

	1994	1995	1996	1997
GDP (billions of baht)	8.9	9.1	9.8	10.3
Consumer prices	5.3	5.1	6.8	3.9
Official public sector balance	0.8	2.3	2.2	-1.6
External current account balance	-1.6	-3.0	-1.9	-3.0
Official reserves	8.8	8.1	8.0	4.1
State / non-programme receipts				

Source: IMF Survey, 26, 27 September 1997.

TABLE 3

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The size of this reversal (\$105 billion over 1996-97) is shown in Table 4. Only foreign direct investment was exempt from it. Most of the turnaround in capital inflows is accounted for by short-term borrowing from overseas banks, in both domestic and foreign currencies. Other features of the Table are the large fall in international reserves across the region, and the offsetting infusion of finance from the international financial institutions-largely the [IMF](#). Why were overseas bankers prepared to lend such large sums to the Asian economies and why did their confidence in the region deteriorate so rapidly? To understand this it is necessary to recall the mindset which existed in early 1997. With the exception of the [Philippines](#), export orientation and macroeconomic rectitude had underpinned years of rapid growth. There was no reason to question the political will to continue these policies. Exchange rate instability was perceived as a problem of the profligate economies of Latin America, not something which could possibly affect the miracle economies of Asia.

Lenders also believed that governments would guarantee bank liabilities to overseas creditors, were they to face repayment difficulties. In the Thai case this was made quite explicit by the establishment of the 'international banking facility' which guaranteed domestic bank borrowing from overseas and supported a particularly large inflow of short-term international bank lending. Following the floating of the baht in

June 1997, international investors and domestic banks realised quite suddenly that they had grossly underestimated the risks of exchange rate realignment throughout Southeast Asia. This quickly became a self-fulfilling prophecy. They sought, individually, to reduce their exposure to exchange rate risk. In the case of the international banks this meant that they now sought to decrease, rather than increase, their domestic currency lending to the Southeast Asian economies. The domestic banks meanwhile sought to hedge their exposure to foreign currency liabilities, by conducting offsetting transactions in both spot and future forex markets. The threat of devaluation also led to a substantial, although largely unrecorded, capital flight (hidden in the errors and omissions of the balance of payments). The pressure to devalue became irresistible. This was the mechanism of contagion by which the crisis spread from [Thailand](#) to [Malaysia](#), [Indonesia](#) and the [Philippines](#). When, in October 1997, banking sector difficulties similar to those which had afflicted [Thailand](#) emerged in [South Korea](#), contagion again affected the South Korean won.

Table 4
Five Asian economies: external financing (US\$ billions)

	1997	1998	1999	2000
Current account balance	-14.8	-41.8	-34.0	-25.6
External financing, net	97.4	98.8	102.8	152.2
Private flows, net	40.5	39.8	40.8	12.1
Direct investment	12.0	13.0	19.1	-4.0
Other private	28.5	26.8	21.7	16.1
Official flows, net	56.9	59.0	62.0	140.1
Official credits	38.2	52.8	59.0	126.1
Official disbursements	18.3	40.2	37.2	12.0
Other official	38.7	12.6	21.8	114.1
Official flows, net	7.6	5.6	-0.2	17.2
Official credits	4.4	3.8	1.8	15.8
Official disbursements	3.2	1.8	2.0	-8.6
Reserve holdings, net ¹	-17.1	-25.8	-18.6	-11.8
Reserve holdings, net ²	-3.4	-13.7	-18.0	-30.2

Notes: The five economies comprise Indonesia, Korea, Malaysia, the Philippines and Thailand.
¹ Excludes: The five economies comprise Indonesia, Korea, Malaysia, the Philippines and Thailand.
² Including: reserves on lending, treasury gold and assets and liabilities.
Source: Institute of International Finance.

Enlarge 200%

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TABLE 4

Contagion effects were amplified by the close substitutability of exports from the different economies of Southeast Asia. The devaluation of the baht made the exports of [Indonesia](#), [Malaysia](#) and the [Philippines](#) much less competitive in Japanese and [US](#) markets. The competitive effects of devaluation also put considerable pressure on the exchange rates of the Hong Kong dollar and the Chinese yuan, which remained firm only because of the currency board arrangement in Hong Kong and the huge volume of Chinese foreign currency reserves.

Exchange rate overreaction

While the crisis was unanticipated, the mechanisms which initiated it and the process by which it spread among the Asian economies are reasonably well understood. What is less amenable to standard economic analysis is why, after the abandonment of currency pegs, exchange rates depreciated by far more than could possibly be justified in terms of economic fundamentals. As illustrated in Fig 1, the exchange rate between the Indonesian rupiah and the dollar fell by 75% before stabilising in early 1998, with the dollar exchange rates of [South Korea](#) and the countries of Southeast Asia depreciating by over 30%. These depreciations have been far in excess of what might have been required to restore fundamental exchange rate equilibrium. Excessive currency depreciations have also affected other Asian countries, such as [Singapore](#), Taiwan and [India](#), which had not operated pegged exchange rates before the crisis and were not affected by such severe banking sector problems.

Special factors apply in the case of [Indonesia](#), where a vacillating policy response and continued political uncertainty have undermined confidence in the rupiah. The other countries, however, responded coherently to the crisis, moving swiftly to close down and restructure insolvent financial institutions and maintaining tight monetary policy to prevent any inflationary impact from devaluation. Moreover, their macroeconomic position continues to be strong, with substantial fiscal surpluses, continued high rates of domestic saving, and a rapid shift into current account surplus as domestic expenditure has contracted. There is nothing in these economic fundamentals which can explain the magnitude of their exchange rate depreciation.

Two factors seem to be relevant to explaining exchange rate over-reaction: investor psychology and the failure of policy makers to deal with the overhang of corporate sector debt. While individually investors can reduce their exposure to particular financial assets, collectively such a reaction produces only a steep decline in prices and worsens their losses. In such circumstances it is common to observe an over-reaction of market prices, with the initial decline followed by an eventual correction. This was, for example, exactly what happened following both the 1987 stock market crash and the departure of sterling from the Exchange Rate Mechanism of the European Monetary System in 1992.

Acting rationally, bank creditors of the Asian countries should surely have realised that, after the event, they had little to gain by withdrawing short-term investments since they had already suffered the capital loss. Why would they continue to liquidate their positions and hence weaken exchange rates? The theory of speculation offers two alternative accounts of such financial crises. Is it that international financial markets are efficient and based on fundamentals, with speculative crises representing the short-term domination of ill-informed speculators who will not survive? Or is it that international financial markets are inherently unstable, and that problems arise when market sentiment becomes biased in one direction? Individual creditors are swayed by market sentiment; their expectations are elastic. The smaller the minority opinion to which they subscribe the more likely they are to abandon it and therefore the smaller the minority becomes. Once foreign lenders began to withdraw from East Asia, the safest bet for the others seemed to be for them to follow suit, regardless of the degree to which exchange rates had departed from fundamental levels.

Instability in exchange rates has been further exacerbated because Southeast Asian economies are not as well integrated into world capital markets as popular characterisation might suppose. Having become so undervalued, the currencies of these countries might have been viewed as highly attractive short-term speculative investments. But the markets in them, unlike those for the currencies of the industrial countries, are relatively illiquid and dominated by trade and investment transactions. Moreover, following the onset of the crisis, liquidity in these forex markets declined dramatically. Few participants were willing to take the kind of speculative trading positions which would have helped move exchange rates back towards their fundamental equilibrium values. By the same token, the orthodox prescription of maintaining high domestic rates of interest in an attempt to encourage short-term capital inflows and strengthen exchange rates has been much less effective in restoring an appropriate real exchange rate than would be the case among industrial countries.

In summary there were, indeed, signs of fundamental disequilibria in the East Asian economies before the crisis in 1997. Inflation was showing signs of accelerating, the current account of the balance of payments had moved into substantial deficit, partly as a result of exchange rate policy and partly as a result of increasing international competition and a slight lapse in the degree of fiscal rectitude.

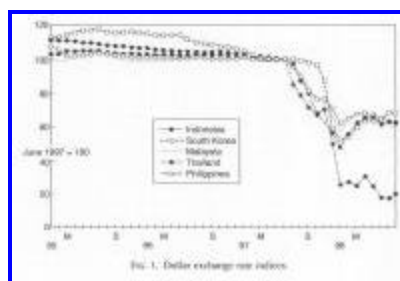


FIG. 1.

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However, an explanation based on fundamental economic weakness cannot be taken too far. If the sky was not 'clear blue' it was certainly no more than 'partly cloudy'. The East Asian economies continued to exhibit high savings rates relatively low external debt relative to GDP, relatively rapid rates of

economic growth and low rates of unemployment. At worst they appeared to face a period of (slightly) declining economic growth, because of diminishing returns to capital accumulation, and a modest combination of monetary and exchange rate adjustment. Their economic fundamentals did not make them candidates for a crisis.

The three key elements which triggered the East Asian crisis were then, first, the liberalisation of domestic financial markets and the capital account, second, the inappropriate use of capital inflows for sometimes speculative investment and third, and perhaps most importantly, the weaknesses in domestic financial sectors and the problems with resolving excessive corporate indebtedness. These exposed the East Asian economies to the intrinsic volatility of private international capital markets and their vulnerability to mutually re-enforcing mood swings among creditors.

In one sense the East Asian crisis was similar to the Mexican peso crisis that had preceded it, in as much as it was proximately an illiquidity rather than an insolvency crisis. But whereas the Mexican crisis had revolved around an 'old' problem in the form of the short-term indebtedness of the government, the East Asian crisis was 'new' in the sense that it was linked to excessive private sector indebtedness, especially short-term foreign exposure. Hong Kong, Taiwan and [Singapore](#) weathered the storm better than the other Southeast and East Asian economies because their corporate sectors were not so overborrowed and because they were less illiquid; their higher holdings of international reserves and their willingness to pursue strict domestic macroeconomic policy moderated the effects of the regional loss of confidence.⁵

Policy failures

Although most macroeconomic fundamentals remain reasonably strong, it is clear that the Asian crisis, far from being close to resolution, may deepen considerably before getting better. While exchange rates have stabilised, current data suggest a substantial contraction of GDP in Southeast Asia and [Korea](#) in 1998 which could be as great as 10% of GDP; some commentators anticipate further declines of output in 1999.⁶ How is it that the response to the Asian crisis has been such a severe macroeconomic contraction, when the conventional macroeconomic indicators, such as the current account balance of payments, fiscal deficits, real exchange rates and inflation, are all fairly benign? The principal reason for this sharp output fall is that little is being done as yet to resolve the overhang of corporate debt. In none of the Asian economies are there any bankruptcy procedures which allow an orderly workout of company debt; an exception to this generalisation is Taiwan, where company failure is common (Aw & Roberts, 1997), a fact which may help to explain why Taiwan has been relatively unaffected by the crisis. Unable to either service or reschedule their debts, companies are substantially reducing investment. This reduction in investment is exacerbated by the reduction in the supply of bank loans, as the authorities have taken steps to deal with banking sector problems. While industrial export industries continue to be highly profitable, falling investment, contraction of bank credit and declining consumer confidence are sharply reducing domestic demand.

Excessive currency devaluation is also a contributory factor, in that domestic banks and corporations continue to be net borrowers of foreign exchange and so suffer substantial declines of net worth as the domestic currency depreciates. This mechanism is most pronounced in the case of [Indonesia](#), where at present exchange rates, for example, some 90% of companies quoted on the [Jakarta](#) stock market are thought to be insolvent.

But it is also clear that these problems are being exacerbated by some of the policies taken to counter the crisis. In particular the high interest rates imposed in order to maintain international investor confidence (in [Thailand](#) and [Korea](#) short-term money market rates rose from around 12% before the crisis to nearly 20%, while in [Indonesia](#) money market rates reached 60% or more) have led to

increased problems of loan repayment and further declines in domestic investment and consumption.

Furthermore, the early reliance placed by the [IMF](#) on a substantial fiscal contraction, as a condition for its support, was misplaced. As it subsequently realised, there is little need for sharp fiscal contraction in an economic environment where domestic saving rates remain high and the investment rate is falling. More recent Fund agreements have placed greater emphasis on the reform of the financial sector.

It is therefore unsurprising that several commentators have argued that the policy response of high interest rates and tight control of fiscal spending made matters worse rather than better (Radelet & Sachs, 1998; Feldstein, 1998). Here, however, policy makers are stuck between 'a rock and a hard place': while lowering interest rates would improve the servicing of domestic currency loans, it would, at the same time, lead to greater exchange rate depreciation and a further deterioration in bank balance sheets.

Threats to Asian recovery also come from the deteriorating economic situation in [Japan](#) and, potentially, from the problems faced by the banking sector and state-owned industry in [China](#). Japanese banks have been among South East Asia's and [Korea](#)'s major international creditors, and are themselves under a fierce credit squeeze. Depreciation of the yen has had adverse knock-on effects on other Asian currencies. Notwithstanding its huge foreign exchange reserves, domestic economic problems in [China](#) could lead to an exchange crisis similar to the one that has afflicted other Asian countries. A further devaluation of the yuan could lead to additional problems throughout Asia.⁷

The basic analytical issue here is the extent to which the Asian economies are facing problems of illiquidity rather than insolvency. The depth of the crisis and the difficulties of dealing with it are certainly exacerbated by illiquidity. Were the Asian economies able freely to access international capital markets on favourable terms, they could raise sufficient funds to recapitalise their banking systems and restructure corporate debt. This would, in turn, restore investor confidence, allow them to lower domestic rates of interest, and lead to an appreciation of exchange rates back towards fundamental equilibrium levels.

There is also, however, a solvency problem, not at the national level, but in relation to many private sector companies which are unable to service outstanding debts. Ultimately, resolution of the crisis and the restoration of growth will require recognition of the real value of this debt and an allocation of losses between domestic governments and both domestic and international creditors. Bank restructuring, while a necessary response, will not be sufficient on its own to restore the confidence of international investors.

In other words, the real policy failure has been of responding not to the real disease-the unsustainable private sector debt overhang and the lack of international liquidity-with the introduction of bankruptcy procedures and a comprehensive debt restructuring, but of instead treating only the symptoms -banking failures, capital outflows and currency depreciation-with the tools of conventional macroeconomic and regulatory policy.

Conclusions: lessons from the East Asian crisis

The first lesson is that capital inflows need to be handled with care. It is through excessive inflows that past economic success can breed future economic failure. In retrospect, and given the size of the capital inflows, which in the case of [Thailand](#) reached about 13% of GDP in 1995, East Asian economies would have been wise to relax their quasi-pegged exchange rate policies. Although the resulting real exchange rate appreciation would no doubt have caused a 'Dutch disease' effect, which would have

weakened the current account of the balance of payments, it would also have avoided the domestic inflationary consequences that merely served to appreciate real exchange rates via another route. More importantly, it would have eliminated the problem of excess credibility. Exchange rate risk (exchange rates may depreciate as well as appreciate), would then have moderated future capital inflows. International financial crises reflect capital instability; in other words, excess capital inflows as well as excess capital outflows.

The East Asian countries would have done better to have relied on conventional monetary and fiscal policy to control inflation and to have allowed their nominal exchange rates to change in order to maintain real exchange rate equilibrium. The East Asian crisis provides further evidence in favour of the 'real targets' approach to exchange rate policy and against the 'nominal anchor' approach (Bird, 1998).

The second lesson is that liberalisation of the domestic banking and financial sectors should not be allowed to occur too rapidly and in the absence of either adequate prudential supervision and regulation or procedures for corporate bankruptcy. The standard view is now that an essential precondition for successful capital account liberalisation is the introduction of proper regulation and supervision of domestic banking systems (Basle Committee on Banking Supervision, 1997; Folkerts-Landau & Lindgren, 1998).

Over a period of seven years up to 1996, banking claims in [Thailand](#), [Korea](#) and [Malaysia](#) increased by more than 50% relative to GDP. Moreover, much of the new lending was financed by the banks borrowing offshore, such that the foreign liabilities of the banking and financial system in [Thailand](#) reached over 28% of GDP by 1995. Not only this, but an increasing share of the foreign borrowing was short term, especially and significantly in the three crisis countries, [Korea](#), [Thailand](#) and [Indonesia](#). Beyond 1994, the ratio of short-term debt to foreign exchange reserves exceeded one in all three countries. With lax regulation of the assets held against these foreign currency denominated shortterm liabilities, and the moral hazard effects of any expected bail-out of the banks (Krugman, 1998), the seeds of a liquidity crisis were sown.

Greater supervision of the banks' balance sheets could have helped avert the financial crisis. This lesson is also emerging from more broadly based economic research published by the [IMF](#) (Demirguc-Kunt & Detragiache, 1998), which suggests that banking sector problems have played a significant role in a number of other currency crises.

Less standard, but perhaps equally important, is the point that any country attracting substantial foreign capital flows to finance corporate investment, either directly or via the domestic banking system, needs to establish the legal framework and procedures for corporate bankruptcy and debt restructuring. This is crucial for two reasons: first, it provides a mechanism for dealing with an excessive build-up of corporate debt; second, the existence of a recognised bankruptcy procedure encourages local banks and overseas creditors to take into account bankruptcy risk, instead of assuming that the face value of claims will be maintained even when a borrower gets into difficulties.

The third lesson is that liberalisation of the capital account of the balance of payments is a two-edged sword. Capital inflows may overcome shortages of domestic saving and provide finance for long-term investment with a high rate of return. This, of course, is the typical justification for free capital mobility. However, especially in an unregulated market, speculative and volatile short term capital inflows may just as easily be used to finance speculative investment. This can make the capital importer highly vulnerable to changed capital market perceptions and outside 'push' factors. Sudden capital outflows then create liquidity problems for which there are no easy answers.

Among the push factors are the contagion effects associated with economic crises elsewhere. Capital outflows may therefore create liquidity problems in countries that have generally used capital imports wisely. Externalities will not be internalised and the resulting allocation of global savings will be inefficient. A lesson from Asia is that problems can arise even where capital inflows are not used to finance consumption.

The conventional calculus of capital account liberalisation has underestimated the vulnerability of liberalised international capital markets to crises associated with the clustering of investors' expectations (Dooley, 1996). Financial crises in emerging markets provide timely evidence of how important this phenomenon can be, and advise in favour of a reassessment of the costs and benefits of unabashed capital account liberalisation. While a full blown regime of permanent capital controls may be unworkable and inefficient, the use of capital controls as a short-term measure to regulate capital inflows and outflows at the margins may be an option that should be retained.

Financial crises may be as much (and possibly more) to do with the shortcomings of private international capital markets as they are to do with the deficiencies of domestic economic policy and performance in crisis countries. It would be unwise, therefore, to focus exclusively on economic reform in crisis countries and to ignore global economic reform which seeks to reduce financial instability. But what needs to be done to stabilise international capital markets? There are well known intrinsic difficulties here since, up to a point, capital mobility confers global benefits. It is excess capital mobility that is the problem. However, this is much easier to define after a crisis than before it.

In principle there are essentially three ways of dealing with the instability of international capital markets. The first involves capital controls to frustrate the market's wishes. The second involves taxing international currency transactions in an attempt to de-incentivise capital movements. And the third involves establishing an international lender of last resort (Ir.LR) which swims against the tide of the market mood sufficiently strongly to change it. There are problems with each of these possibilities. Capital controls may not work in the long run because of evasion. Transactions taxes may encounter low elasticities, given the size of the potential gains from currency transactions relative to the size of the tax. And an ILL.R requires massive resources given the size of private international capital markets, and also has associated moral hazard problems.

The provision of more information and greater transparency is, in principle, a way of dealing with informational asymmetries which may be part of the problem of international financial instability. But this too may encounter difficulties. It is the distribution of expectations that stabilises non-efficient markets. More (and superior) information will narrow this distribution. If the information is accurate and pertains to fundamentals, foreign lending will become more rational, speculators will in the long run lose out and will be discouraged. However, if the information is inaccurate in terms of the fundamentals it will encourage inappropriate capital flows that then themselves weaken the fundamentals.

In practice the answer to international financial instability is to ensure that the costs of crises are shared across creditors as well as debtors, with private creditors having to reschedule their loans and extend maturities. This will not only help to cure crises that have occurred but, by increasing the perceived risks of foreign lending, will help prevent the crises to which excess lending contributes.

Lesson four is that the policy response to a crisis needs to be based on a careful diagnosis of the underlying economic difficulties. In the Asian case failure to deal with the private sector debt overhang, and over-reliance on conventional macroeconomic policy instruments, has led to a deep and protracted decline in output.

The final lesson is that economics as a subject still has a lot to learn. Over the past 10 years economists failed to predict the fall of Communism and the related move to market-based systems, as well as the two major international financial crises that have hit the world economy. At a time when market-based solutions and liberalisation have been in the ascendancy, the Mexican and latterly the East Asian crisis have come along to give pause for thought. There is clearly some distance still to travel along the learning curve.

[Footnote]

Notes

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1 Krugman (1994) argued that explaining East Asia's economic growth in terms of rapid factor accumulation rather than by rapid growth in factor productivity allowed comparisons to be drawn with the economic growth achieved in earlier years by the Soviet bloc. This comparison is interesting since it suggests that the nature of the 'Asian development model', relying on some degree of intervention in markets, is per se unlikely to be a significant factor in explaining the rapid economic growth achieved by East Asia. 2The IMF's World Economic Outlook, May 1998 records Asian economic growth as averaging about 9.3% per year over the period 1992-95, compared with 7% per year over the period 1992-95, compared with 7% per year over the period 1980-89. While Asia was growing at an annual rate of over 9%, Africa and Latin America were growing at annual rates of about 1.4% and 3.3%, respectively over the same 1992-95 period.

3¹ [Malaysia](#), ² [Singapore](#) and Hong Kong were able to avoid turning to the ³ [IMF](#) for assistance, whereas ⁴ [Thailand](#), ⁵ [Korea](#) and ⁶ [Indonesia](#) all arranged stand-by programmes with the IMF in the period from August to December 1997. The amounts of finance approved were SDR 2.9 billion for ⁷ [Thailand](#), SDR 7.3 billion for ⁸ [Indonesia](#) and SDR 15.5 billion for ⁹ [Korea](#). As of March 1998, SDR 10.3 billion in total remained undrawn. The ¹⁰ [Philippines](#) already had an extended arrangement in place, but negotiated a stand-by arrangement for SDR 1.02 billion in March 1998.

4To a large extent the factors that influence economic sustainability are the same as those that were identified as influencing country risk in the context of the Third World debt crisis in the 1980s. See, for example, Bird (1989). A more recent analysis of current account sustainability that also identifies factors similar to those used here is Milesi-Ferretti & Razin (1996).

5Empirical support for this explanation is found in Radelet & Sachs (1998) who test the strength of alternative risk indicators in predicting the onset of financial crises in the emerging markets over the period 1994-97. They find that a high ratio of short-term debt to reserves is 'strongly associated' with the onset of a crisis, even to the extent of being a necessary condition. Long-term indebtedness is not significant. A rapid build-up of claims by the financial sector on the private sector is relevant in some but not all cases. Large current account balance of payments deficits are found to be 'only weakly associated' with the onset of a crisis; they are neither necessary nor sufficient. Surprisingly, Radelet & Sachs find no empirical evidence to support the significance of real exchange rate overvaluation. This finding is at odds with other

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research which has systematically surveyed studies into currency crises (Kaminsky et al, 1998) where, as a general rule, currency overvaluation is found to be important.

6In early 1998 the ¹ [IMF](#) was estimating and forecasting a growth rate in ² [Thailand](#) that was barely positive in either 1997 or 1998. Before the crisis it had been predicting growth rates of 6.8% in 1997 and 7% in 1998. Growth rates for the Asian five in 1998, as predicted by the ³ [IMF](#) in December 1997, were ⁴ [Indonesia](#), 2%, ⁵ [Malaysia](#), 2.5%, ⁶ [Philippines](#), 3.8%, ⁷ [Thailand](#), 0%, and ⁸ [Korea](#), 2.5%. The massive over-prediction of economic growth in East Asia by the ⁹ [IMF](#) yet again illustrates the extent to which the crisis was unforeseen. It also suggests a measure of inconsistency within the Fund which, after the event, emphasised fundamental weaknesses in the East Asian economies. However, these did not discernibly reveal themselves in the Fund's own growth forecasts for the region before the crisis. The Fund's over-predictions of economic growth in the region also help explain to some extent the policy mistakes that were made under the auspices of the ¹⁰ [IMF](#) in responding to the crisis.

7The continuing crisis in East Asia contrasts with the apparently much shorter-term world financial crisis to which it contributed. Policy makers in the ¹ [USA](#) and ² [Europe](#) have been prepared to respond by relaxing monetary policy in an attempt to offset this contractionary overspill from East Asia and avert a major world economic recession. In October 1998 ³ [US](#) equity prices rose by 14%, leading some Wall Street analysts to talk in terms of a financial market 'meltup' as opposed to 'meltdown'. The return of a bullish market mood in financial markets could improve the general lack of confidence, and influence consumer and investor behaviour in such a way as to sustain world economic activity. The domestic response of the USA and the UK to the world financial crisis may be contrasted with that adopted in East Asia, often under the auspices of the ⁴ [IMF](#).

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